

INVESTIGATION OF P-SEXIPHENYL LAYERS VAPOR DEPOSITED ONTO KCl(001) BY ATOMIC FORCE MICROSCOPY (AFM), J.D. Baxley and E.J. Kintzel, Jr.* , Western Kentucky University, Department of Physics and Astronomy, Bowling Green, KY 42101, edward.kintzel@wku.edu.

We have investigated the structural properties of the aromatic molecule p-sexiphenyl vapor deposited onto KCl (001) substrates. Individual substrates were maintained in the temperature range 50-200K during growth of these ultra-thin films. In a series of AFM studies the microstructure evolution of the adsorbed films can be observed as a function of substrate temperature during deposition. Included in our observations are needle-like structures and platelets of p-sexiphenyl that can be related to the substrate temperature during deposition. The needles are approximately aligned along the [110] direction of the KCl (001) surface. The results are reproducible and suggest that ultrathin films of *p*-6P molecules can be grown with desired molecular orientations by carefully selecting the appropriate substrate temperature during deposition.